



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/873,698	06/04/2001	Slawomir T. Fryska	H0001347	4771

7590

02/07/2003

Larry J. Palguta
Honeywell International Inc.
Law Department
3520 Westmoor Street
South Bend, IN 46628

EXAMINER

BUTLER, DOUGLAS C

ART UNIT

PAPER NUMBER

3683

DATE MAILED: 02/07/2003

Please find below and/or attached an Office communication concerning this application or proceeding.



09/873698

UNITED STATES DEPARTMENT OF COMMERCE
Patent and Trademark Office

Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231

SERIAL NUMBER	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
---------------	-------------	----------------------	---------------------

EXAMINER

ART UNIT

PAPER NUMBER
15

DATE MAILED:

This is a communication from the examiner in charge of your application.
COMMISSIONER OF PATENTS AND TRADEMARKS

☒ This application has been examined ☒ Responsive to communication filed on 1/17/03 ☐ This action is made final.

A shortened statutory period for response to this action is set to expire 3 month(s), 0 days from the date of this letter.
Failure to respond within the period for response will cause the application to become abandoned. 35 U.S.C. 133

Part I THE FOLLOWING ATTACHMENT(S) ARE PART OF THIS ACTION:

- | | |
|---|---|
| 1. <input checked="" type="checkbox"/> Notice of References Cited by Examiner, PTO-892. | 2. <input type="checkbox"/> Notice of Draftsman's Patent Drawing Review, PTO-948. |
| 3. <input checked="" type="checkbox"/> Notice of Art Cited by Applicant, PTO-1449. | 4. <input type="checkbox"/> Notice of Informal Patent Application, PTO-152. |
| 5. <input type="checkbox"/> Information on How to Effect Drawing Changes, PTO-1474. | 6. <input type="checkbox"/> |

Part II SUMMARY OF ACTION

1. ☒ Claims 1-9, 18-20 are pending in the application.
Of the above, claims _____ are withdrawn from consideration.
2. ☒ Claims 10-17 have been cancelled.
3. ☐ Claims _____ are allowed.
4. ☒ Claims 1-9, 18-20 are rejected.
5. ☐ Claims _____ are objected to.
6. ☐ Claims _____ are subject to restriction or election requirement.
7. ☐ This application has been filed with informal drawings under 37 C.F.R. 1.85 which are acceptable for examination purposes.
8. ☐ Formal drawings are required in response to this Office action.
9. ☐ The corrected or substitute drawings have been received on _____. Under 37 C.F.R. 1.84 these drawings are ☐ acceptable; ☐ not acceptable (see explanation or Notice of Draftsman's Patent Drawing Review, PTO-948).
10. ☐ The proposed additional or substitute sheet(s) of drawings, filed on _____, has (have) been ☐ approved by the examiner; ☐ disapproved by the examiner (see explanation).
11. ☐ The proposed drawing correction, filed _____, has been ☐ approved; ☐ disapproved (see explanation).
12. ☐ Acknowledgement is made of the claim for priority under 35 U.S.C. 119. The certified copy has ☐ been received ☐ not been received ☐ been filed in parent application, serial no. _____; filed on _____.
13. ☐ Since this application appears to be in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11; 453 O.G. 213.
14. ☐ Other

EXAMINER'S ACTION

BEST AVAILABLE COPY

PART III

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on January 17, 2003 has been entered.
2. An action on the merits of claims 1-9 and 18-20 considered readable on Species A (Figures 2- 4) is included in this office action.
3. Claims 10-17 were canceled.
4. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).
5. The prior art filed Nov. 7, 2002 and search report have been considered together with applicants' arguments.
6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Art Unit: 3651

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patent ability shall not be negative by the manner in which the invention was made.

8. Claims 1 and 18 are rejected under 35 U.S.C. 102(b) as being anticipated by FR 2693246 to Berndt et al.

Figs. 1-3A of FR 2693246 to Berndt et al. disclose an annular structural core 1 having sinusoidally-shaped or corrugated surfaces at Z (Fig.3) with frictional lining elements 5.

9. Claims 2, 5, 7-8 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over FR 2693246 to Berndt et al. in view of Pigford (4982818), of record.

Instant claims 2, 5, 7-8 and 19 are directed to the use of carbon-carbon composite for the material of choice for the core and/or friction lining.

FR2693246 to Berndt et al. lacks the specific claimed materials.

Pigford (4982818) discloses the feature of carbon-carbon core and/or friction linings.

It would have been obvious to select carbon-carbon material for the core and friction linings of FR 2693246 as taught by Pigford since the use of carbon-carbon is a well known material for the intended use for enhanced braking capability. It has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. In re Leshin, 125 USPQ 416.

Art Unit: 3651

10. Claims 3-4 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over FR 2693246 to Berndt et al. in view of Marin (3759353).

Instant claims 3-4 and 20 are directed to the use of the friction disk in fields of technology which use drive lugs (keys) for mounting the brake disk, rotor, disc, plate.

It would have been obvious to modify the friction disk of Berndt et al to include lugs either at the inner or outer surface as taught by Marin for mounting purposes.

11. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over FR 2693246 to Berndt et al in view of Cook et al (3800392) or Hummel (4991697), newly cited.

FR 2693246 to Berndt et al. lacks the claimed mechanical connection or fastener which is disclosed by each of the references to Cook et al. (3800392) and Hummel (4991697).

It would have been obvious to mechanically connect the linings 5 of Figs. 1-3A of Berndt et al. to its core by the use of mechanical fasteners as taught by each of the secondary references to Cook et al. and Hummel in order to secure the lining securely.

12. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over FR 2693246 to Berndt et al. in view of Hill et al. (4011055), of record as Berndt et al. is modified by Pigford in paragraph 9 above. Hill et al. (4011055) teaches coating a brake with anti-oxidant coating (thermal coating) in order to reduce oxidation during high temperatures.

It would have been obvious at the time the invention was made to one having ordinary skill in the art to which the invention pertains to modify the principal reference

Art Unit: 3651

to Berndt et al. (FR 2693246), as modified, to include a thermal coating as taught by Hill et al (4011055) in order to reduce oxidation during high temperatures.

13. Claims 1-2, 5, 7-8, 18-19 are rejected under 35 U.S.C. 102(b) as being anticipated by GB 2148187 to Bauer et al.

See the entire disclosure of Bauer et al. Fig. 2 of Bauer et al. discloses a carbon-carbon core 12, 16 with sinusoidally- shaped mounting surface at 16.

14. Claims 3-4 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over GB 2148187 to Bauer et al. in view of Marin (3759353).

Instant claims 3-4 and 20 are directed to the use of the friction disk in fields of technology which use drive lugs (keys) for mounting the brake disk, rotor, disc, plate.

It would have been obvious to modify the friction disk of Bauer et al. to include lugs either at the inner or outer surface as taught by Marin for mounting.

15. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over GB 2148187 to Bauer et al. in view of Cook et al. (3800392) or Hummel (4991697).

Bauer lacks the mechanical claimed fastener.

It would have been obvious to use a mechanical fastener similar to that of Cook et al. or Hummel to connect the lining to its core (backing plate) in Bauer to securely connect the elements.

16. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bauer et al. (GB 2148187) in view of Hill et al.

It would have been obvious to provide Bauer et al. with a thermal coating as taught by Hill et al. in order to reduce oxidation at high temperature.

Art Unit: 3651

17. Note the sinusoidal connection in Fig. 2 of Freist et al. (EP1094236 A1).

Similarly, see Figs. 1-4 of DE 19706123.

18. Note annular core 4b with frictional linings 4a attached thereto. See, similarly, Figs. 1-4 of Kremsmair et al. (6105234).

19. Note the corrugations formed in backing plate 30 of Fig 3 of Flotow et al. (5097932).

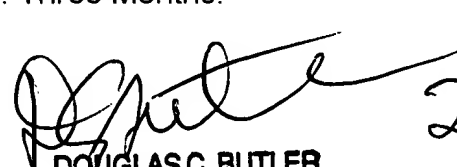
20. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Exmr. Butler whose telephone number is (703) 308-2575. The examiner can normally be reached on Monday to Friday from 5:30 a.m. to 2 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Lavinder, can be reached on (703) 308-3421. The fax phone number for the organization where this application or proceeding is assigned is (703) 305-7687.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1113.

21. Summary of Claims: (A) Claims 1-9, 18-20 rejected.
(B) Claims 10-17 canceled.
(C) S.S.P. Three Months.

Butler/cb
February 5, 2003


DOUGLAS C. BUTLER
PRIMARY EXAMINER
2/6/03
AU3683